

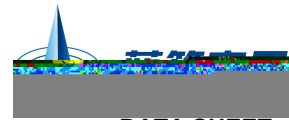
/ Revised record

F	2017-4				
G	2020-5-18	1			
A	2022-2-21	all	BR Q AEC-Q101 H Q 245±5°C 5±0.5sec 255±5°C 5±0.5sec		

SOT-23

NPN

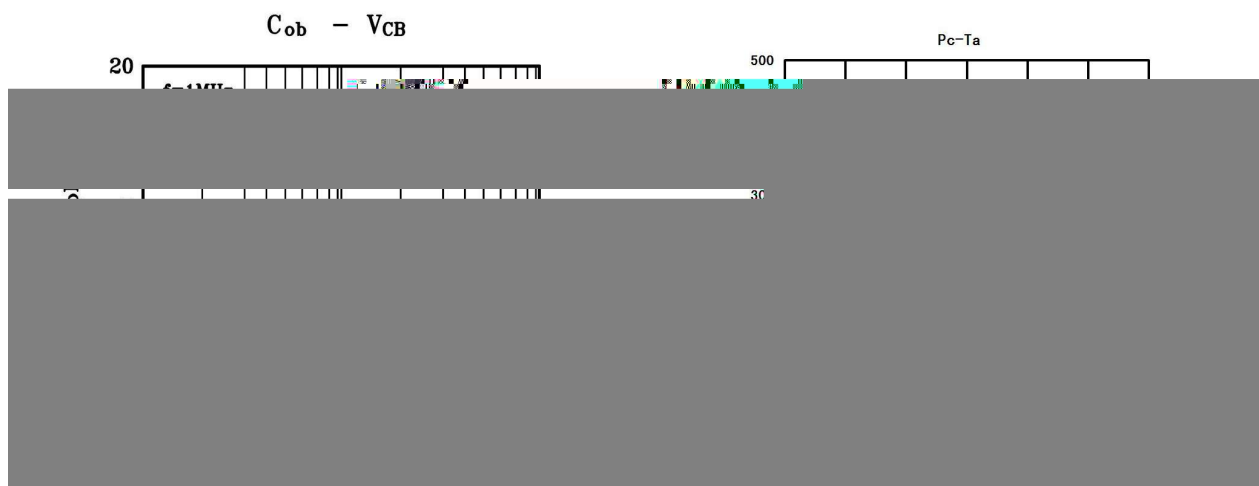
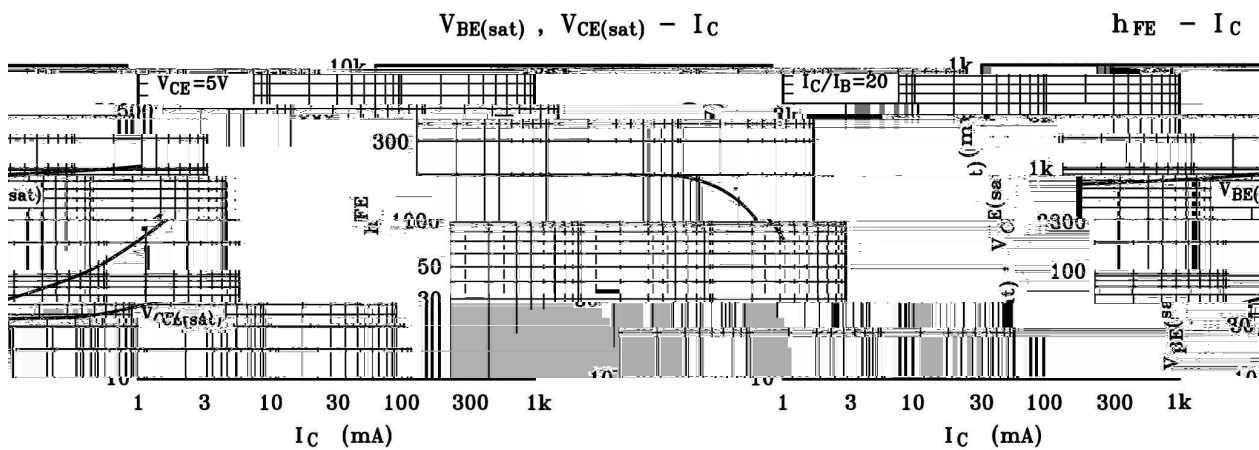
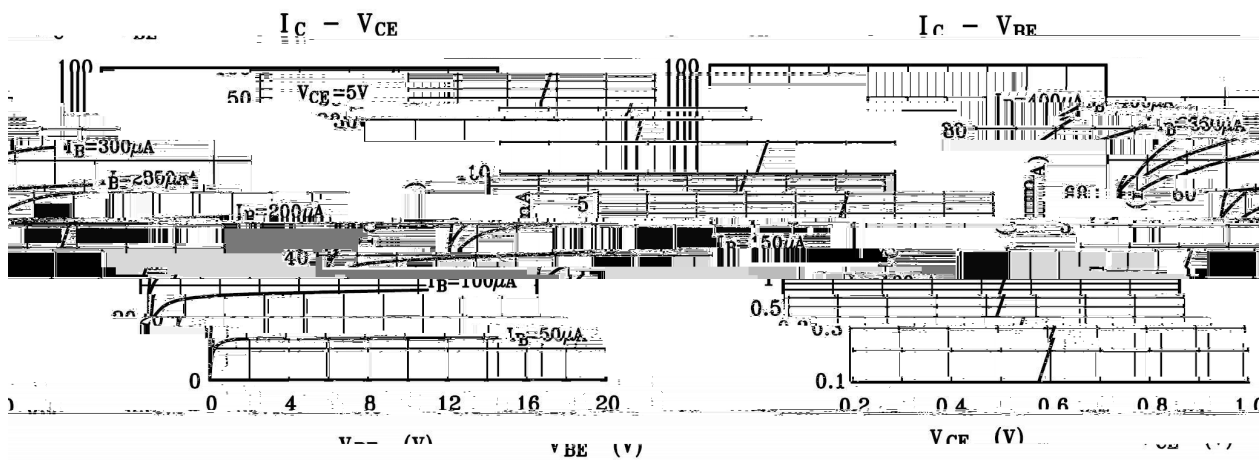
Silicon NPN transistor in a SOT-23



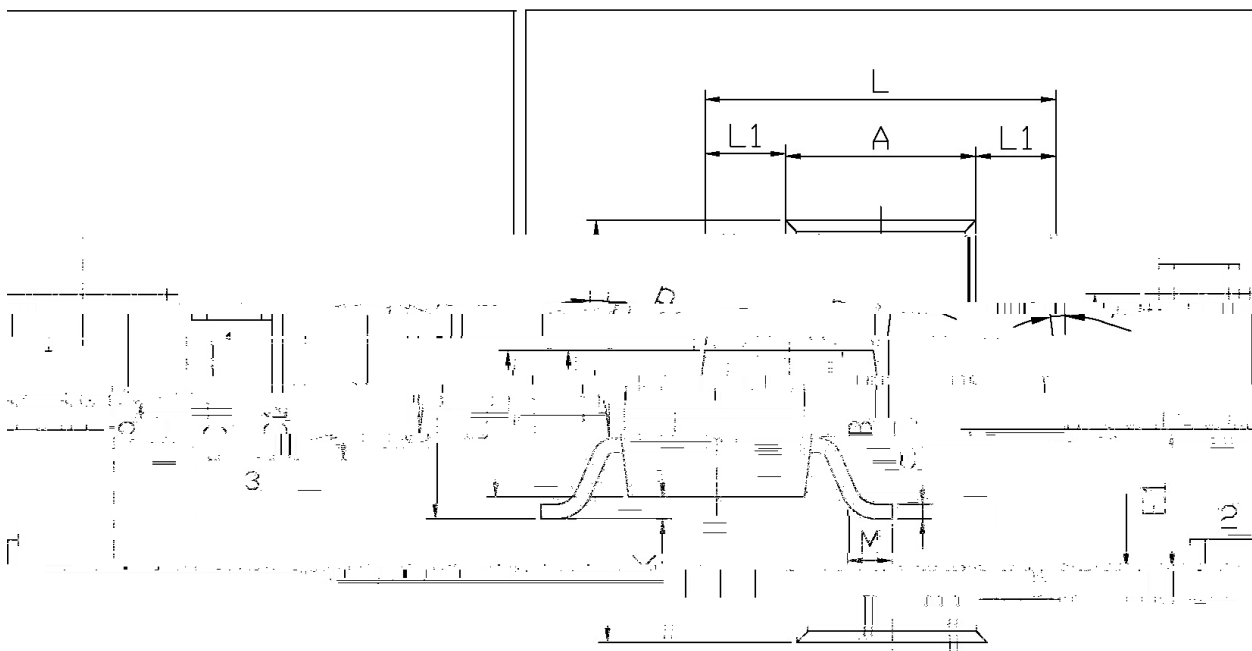
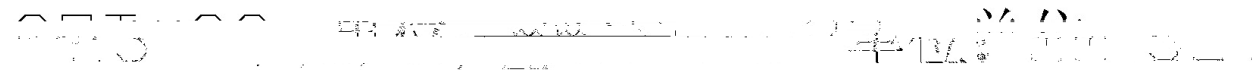
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	100	mA
Collector Power Dissipation	P_C	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V$ $I_E=0$			0.015	μA
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=2.0mA$	110		800	
Collector to Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=10mA$ $I_B=0.5mA$		0.09	0.25	V
	$V_{CE(sat)2}$	$I_C=100mA$ $I_B=5.0mA$		0.2	0.6	V
Base to Emitter Saturation Voltage	$V_{BE(sat)1}$	$I_C=10mA$ $I_B=0.5mA$		0.7		V
	$V_{BE(sat)2}$	$I_C=100mA$ $I_B=5.0mA$		0.9		V
Base to Emitter Voltage	$V_{BE(on)1}$	$V_{CE}=5.0V$ $I_C=2.0mA$	0.58		0.7	V
	$V_{BE(on)2}$	$V_{CE}=5.0V$ $I_C=10mA$				

/ Electrical Characteristic Curve

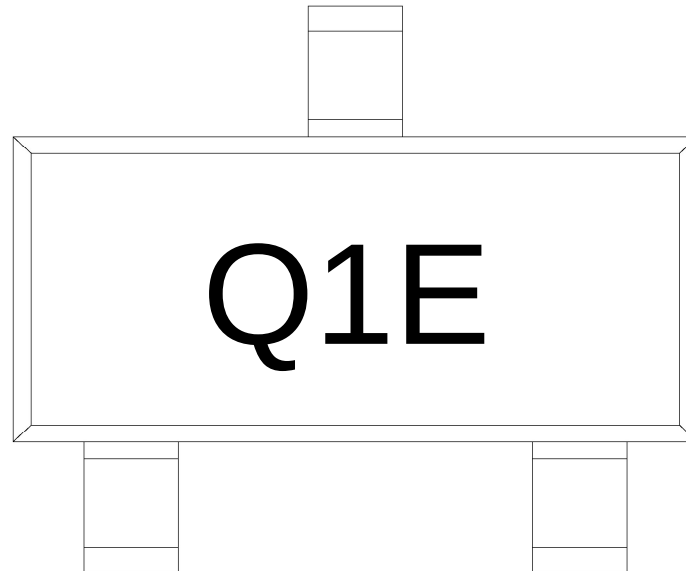


/ Package Dimensions



Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	1.50	1.50	B	0.90	1.20
B	2.70	3.40	C	0.10	0.10
E	1.70	2.10	M	0.20	0.20
E1	0.85	1.05	P	7°	
b	0.35	0.55			

/ Marking Instructions



Q

1E

Note:

Q: Automobile halogen-free product Code

1E: Product Type Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)

- 说明：

 - 1、预热温度 150 ~ 200℃，时间 60 ~ 120sec;
 - 2、峰值温度 255±5℃，时间持续为 5±0.5sec;
 - 3、焊接制程冷却速度为 2 ~ 10℃/sec.
- Note:

 - 1.Preheating:150~200℃, Time:60~120sec.
 - 2.Peak Temp.:255±5℃, Duration:5±0.5sec.
 - 3. Cooling Speed: 2~10℃/sec.

/ Resistance to Soldering Heat Test Conditions

温度：260±5℃ 热